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ABSTRACT

In an effort to determine the correlation between assessment placement test scores and grade point average (GPA), a study was conducted at Terra State Community College (TSCC), in Ohio. A sample population was constructed of 93 potential students who took the American College Testing Service Assessment of Student Skills for Entry Transfer (ASSET) placement test Form B and began attending TSCC full-time in fall 1992. The sample consisted of 47 males and 46 females ranging in age from 17 to 47, with a mean age of 21.7. Test scores and course grades were obtained through the TSCC records office. A statistically significant correlation was found between cumulative GPA and all three ASSET scores: written skills, reading skills, and numerical skills. The amount of common variance between the scores and GPA was small, however, registering 16% for written skills, 17% for reading skills, and 8% for numerical skills. The study findings, therefore, could not be considered conclusive. To get a better picture of correlation between these variables, a study should be done on a larger scale, using samples from different ASSET testing years and examining student retention in addition to GPA.
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Placement Scores as Predictors of Future Success:

Is there a Correlation with Grade Point Average?

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Abstract

Is there a correlation between placement test scores and GPA for students at Terra State Community College (Terra)? All students included in this study took the American College Testing Service (ACT) ASSET test in the fall of 1992 and were full-time students at Terra. The sample consisted of 93 students (47 males, 46 females) ranging in age from 17 to 47. Data was gathered from records obtained in student services and the records office. There was a statistically significant correlation ($df = 91$, $p < .01$, 2-tailed: ASSET Written Skills $r = .4043$, ASSET Reading Skills $r = .4123$, ASSET Numerical Skills $r = .2842$) between cumulative GPA and each of the ASSET scores.

Placement Scores as Predictors of Future Success:

Is there a Correlation with Grade Point Average?

Placement testing may be a useful predictor of college success. This study was designed to discover if there was a positive correlation between assessment placement test scores and grade point average (GPA) for students at Terra State Community College (Terra). If there was a positive correlation then the ASSET may be useful as a predictor of future academic success. Studies have been conducted which relate placement tests to student success in regard to course work outcome (Armstrong, 1991; Chapdelaine, 1988; Gabe, 1989; Hughes & Nelson, 1991) at a variety of institutions. Gabe (1989) indicated that placement test scores may not be the best predictive measure of future course grade success. She suggested mandatory placement based on the placement test scores might not be a good idea. (Mandatory placement indicates that the score on the ASSET test is the determining factor concerning which course a student takes initially. A certain score being mandated by the college as indication of the only proper placement for that student.) Hughes & Nelson (1991) had a similar conclusion concerning the predictive value of ASSET scores on student success. Gillespie (1993) disagreed with Hughes & Nelson's results concerning the predictive value of ASSET scores. She suggested additional

factors which may have caused the lack of correlation in their study and alternative analysis that may produce different results.

The hypothesis of this study was that there was a positive correlation between ASSET scores and GPA. Do students who score high on the ASSET tests maintain a higher GPA than those who score low? The independent variables were the ASSET scores and the dependent variable was GPA.

Method

A convenience sample of 93 was taken from the population of potential students who took the American College Testing Service (ACT) ASSET placement test form B at Terra in the summer of 1992 for placement in Fall quarter. This sample included only students who began attending full time in the Fall quarter of 1992. There were 46 females and 47 males ranging in age from 17 to 47. The mean age of 21.7 was notably younger than the average student age college wide. ASSET test scores, gender, age, and course grades were obtained through student services. GPA's and attendance information were obtained through the records office. The information was collected on a survey form which did not include name, student identity number or social security number so that student anonymity would be maintained. Permission to conduct this initial study was obtained from the administration of Terra. Faculty and staff members

facilitated the data collection. The information was processed for analysis at Bowling Green State University.

Results and Discussion

There was a significant correlation between cumulative GPA and each of the ASSET scores [$df = 91$, $p < .01$, 2-tailed: ASSET Written Skills (WS) $r = .4043$, ASSET Reading Skills (RS) $r = .4123$, ASSET Numerical Skills (NS) $r = .2842$]. These results are statistically significant, however the percentages are small (WS 16%, RS 17%, NS 8%). In other words, the amount of common variance between WS and GPA is 16%, RS and GPA is 17%, and NS and GPA is 8%. According to Gay (1992), "Common Variance refers to the variation in one variable that is attributed to its tendency to vary with the other." (p. 267)

The statistics related to WS are: Mean = 40.7 (average), Mode = 37 (most frequent score), $SD = 6.8$ (standard deviation), scores ranged from 25 to 54. The statistics related to RS are: Mean = 41.5, Mode = 41, $SD = 5.7$, scores ranged from 29 to 53. The statistics related to NS are: Mean = 40.8, Mode = 34, $SD = 6.5$, scores ranged from 26 to 53. The statistics related to GPA are: Mean = 2.5, Mode = 0, $SD = 1.2$, GPA ranged from 0 to 4.0.

The findings of this study were not conclusive. The statistical results indicated that there was a significant correlation between ASSET scores and GPA, which follows

Gillespie's (1993) findings. The percentages of common variance were low (between WS and GPA is 16%, RS and GPA is 17%, and NS and GPA is 8%) and therefore seem to agree with the findings of Hughes & Nelson (1991) and Gabe (1989).

In order to get a better picture of correlation between these variables a study should be done on a larger scale using samples from different ASSET testing years. Looking at retention of students as well as course outcomes (grades) and GPA in relation to ASSET scores may provide pertinent information. The parameters need to include a way to reduce the effect of students who vanish without withdrawing and fail all courses as a result.

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